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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/690,940	10/22/2003	Tukaram K. Hatwar	86669RLO	7698

7590

08/24/2005

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EXAMINER

GARRETT, DAWN L

ART UNIT

PAPER NUMBER

1774

DATE MAILED: 08/24/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/690,940	HATWAR ET AL.	
	Examiner	Art Unit	
	Dawn Garrett	1774	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 June 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-8, 13, and 17-20 is/are rejected.
- 7) ☒ Claim(s) 9-12 and 14-16 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 22 October 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>7-26-2005</u> . | 6) <input type="checkbox"/> Other: _____ |

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DETAILED ACTION

Response to Amendment

1. This Office action is responsive to the amendment dated June 23, 2005. Claims 1, 5, and 13 have been amended. Claims 1-20 are pending.
2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Specification

3. The amendment to the specification is acknowledged. It is suggested that the status of listed application "10/131,801" be updated by amendment by inserting the words "now abandoned".

Claim Rejections - 35 USC § 112

4. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

5. Claims 1-4 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The claim 1 amendment adding the phrase "at least two" is considered to be new matter. It is not seen where the specification provides for an unlimited number of light-emitting layers, which the claim language "at least two" would include.

Art Unit: 1774

6. The rejection of claims 13-20 under 35 USC 112, second paragraph, set forth in the Office action dated April 6, 2005, paragraph 3, is withdrawn due to the amendment of claim 13.

Claim Rejections - 35 USC § 103

7. Claims 1, 5, 13, and 17-19 are again rejected under 35 U.S.C. 103(a) as being unpatentable over Codama (US 6,091,196). Codama discloses electroluminescent devices emitting white light that may have a blue light emitting layer and a yellow light emitting layer (see col. 16, lines 29-34). Codama fails to teach an example comprising perylene; however, Codama does teach a fluorescent substance is included within the light emitting layer such as perylene derivatives (see col. 11, line 64 to col. 12, line 11). It would have been obvious to one of ordinary skill in the art at the time of the invention to have selected a perylene derivative for making an electroluminescent device, because Codama generally teaches that perylene derivatives are materials that may be used as the fluorescent substance of the device. Per instant claim 5, Codama further teaches a hole injecting and transporting layer is included in the device (see col. 11, lines 42-49) and a yellow light emitting layer may be included (see col. 16, lines 29-31). Per instant claim 13, Codama further teaches an electron transporting layer that may be provided separately from the light emitting layer (see col. 12, lines 19-28). Per instant claims 17 and 18, Codama teaches the hole transporting layer should be in contact with a light emitting layer (see col. 11, lines 42-45). Per instant claim 19, Codama teaches fluorescent material for the light emitting layer(s) may be from 0.1 to 10% (see col. 16, lines 38-41). The present specification on page 28 discloses an amount of perylene dopant that is considered non-luminescent is less than 5% by weight. Codama is deemed to teach fluorescent material in the light emitting layer within the range disclosed by applicant.

Art Unit: 1774

8. Claims 2-4, 6-8 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Codama (US 6,091,196), and further in view of Toguchi et al. (US 6,753,097). Codama is relied upon as set forth above. Codama teaches perylene derivatives as the fluorescent material of the light emitting layer (see col. 11, line 64 to col. 12, line 11), but fails to teach the specific perylene derivatives of claims 2-4, 6-8, and 20. Toguchi et al. teaches in analogous art perylene derivatives for the light emitting layer of an organic electroluminescent device according to formula C1 (see abstract). Any one of R^5 to R^{12} may combine to form a ring, which would include benzoperylene, dibenzoperylene, and tribenzoperylene (see col. 3, lines 58-59). It would have been obvious to one of ordinary skill in the art at the time of the invention to have selected one of benzoperylene, dibenzoperylene, or tribenzoperylene for the perylene derivative of the Codama device, because Toguchi et al. teaches the perylene derivatives are suitable for a light emitting layer of an organic electroluminescent device.

Allowable Subject Matter

9. Claims 9-12 and 14-16 are again objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. The prior art fails to teach or to render obvious the incorporation of perylene derivatives within multiple layers of an organic electroluminescent device as specified in claims 9-12 and 14-16.

Response to Arguments

10. Applicant's arguments filed June 23, 2005 have been fully considered but they are not persuasive.

Art Unit: 1774

11. First, the examiner submits that applicant's recitation of a "concentration... to thereby increase lifetime..." is not patentably significant, because the device is not compared to any other device, so the term "increase" does not provide any specific requirements for the claimed device. Applicant argues the perylene of the invention does not emit light and this feature was not known or suggested in the art. Recitation of a newly disclosed property does not distinguish over a reference disclosure of the article or composition claims. *General Electric v. Jewe Incandescent Lamp Co.*, 67 USPQ 155. *Titanium Metal Corp. v. Banner*, 227 USPQ 773. Applicant bears responsibility for proving that reference composition does not possess the characteristics recited in the claims. *In re Fitzgerald*, 205 USPQ 597, *In re Best*, 195 USPQ 430. The examiner maintains that Codama teaches fluorescent material for the light emitting layer(s) may be from 0.1 to 10% (see col. 16, lines 38-41). The present specification on page 28 discloses an amount of perylene dopant that is considered non-luminescent is less than 5% by weight. Codama is deemed to teach fluorescent material in the light emitting layer within the range disclosed by applicant. Toguchi et al. is relied upon to teach specific perylene fluorescent compounds that are known and used in the art.

Conclusion

12. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after

Art Unit: 1774

the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dawn Garrett whose telephone number is (571)272-1523. The examiner can normally be reached Monday through Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rena Dye can be reached at (571) 272-3186. The fax phone number for the organization where this application or proceeding is assigned is (571)-273-8300

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Dawn Garrett
Primary Examiner
Art Unit 1774

D.G.
August 22, 2005